Work Orde Wednesday, Apr			M		*100	1617*							Page 1	
Revision ID:	D3189-1 Chafing Shiel	d(send DSI	9629 with sp		Accept	*N900	<u>040</u>	100)*	Setup	Start Stop		S1* S2*	=
Start Date: Required Date:	4/24/2013	Start Q	ty: 1.00 Qty: 1.00	*1* *1*		Cust Item I Customer:	D:					I VI		
Approvals:			- W	Date: <i>[3-04]-34</i> Date:			ate:]	Run	Start Stop	*N *N	R1* R2*	
Sequence ID/ Work Center II	D	Operation Descript			Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty			Reject Number	Insp. Stamp	-
Draw Nbr	Rev	ision Nbr							······································					
D3189	С												and the second	
100 *100* Waterjet		SHEAR	Memo		0.00				3		\$		le/Jm 13.05.2	7
FLOW CNC Waterjo	et		1-Cut as per Dwg Rev: Prog Rev:	<u></u>									Pro	<u>ත</u>
USTE C	s.025" P13/5/27	L	2-Deburr if 1	necessary	:		٠							
103 *1 03 * QC	. ,	QC2- Insp	ect parts off m Memo	achine FAI/FAIB	0.00	į			3		ð.	_Ab_:	JM135.	27

Memo

Quality Control

NCR:	Yes	1	No
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DQA: Date:

NCR: Y	es / No)			WORK ORDER NON-	-COI	NFORM	MANCE / UP	DATE			
	,						_	•		QA Closed:	Date:	•
Work Orde	r:				DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
Part N	0				Rework Scrap		ī	Skid-tube Machining	Crosstube Small Fab	_	Water Jet d. Eng. Coor	Engineering Quality
NCR N	0				Use-as-is Work Order Update	_		noforming Large Fab	Finishing Composite	Rec/Sto	e/Packaging Supplier	Other
Root		T		Descr	ription of work order update	\top	nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
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quip/Tooling			1									• • •
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Other	_											
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upplier	_											
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						FAUL	T CATE	GORY				-
Landin	_			_	General		1			٦, , ,	<u> </u>	Pressure/Forced
	Bendin	_			Bend	\vdash	Grain		-	Ovalized	<u> </u>	-1 '
1		Not Conce	ntric to	o/s -	BOM/Route		Hardwa		• -	Over/Under		Temperature/Cure
-	Cracks			 	Broken/Damaged	-	4	on Incomplete	,,,,,,, <u> </u>	Part Incorred	<u> </u>	Weld
-		d/Crimped		·	Burrs	\vdash	4	ions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs			-	Contamination	\vdash	Mainte		-	Part Moved		
-	Heat T		 .	 	Countersink	\vdash	Mislabe		-	Positioned V		Other
}	− 1	tion Strip ir	1 lube	-	Cut Too Short	\vdash	Misread	1	L	Power Loss/	Surge	Tomer
}	→ ``	in Bend		<u> </u>	Drill Holes	-	Offset	S-111				· · · · · · · · · · · · · · · · · · ·
}	_	Waves in		n ├	Drawing	-	4	Calibration				
ļ		g Sequence		-	Finish	-	4	Sequence				. ,
l	Wave/	Twist in Țu	be	l l	Folio	- 1	Outside	Dimensions				

÷										DQA:	Date:	
NCR: Y	es /	No				WORK ORDER NON-C	CON	FORM	IANCE / UPDATE	QA Closed:	Date:	
						DISPOSITION	T		AGAINST D	EPARTMENT	/PROCESS	ŕ
Work Orde	_	10 D3	_			Rework			Skid-tube Crosstube Machining Small Fab		Water Jet	Engineering Quality Other
· NCR N		_ <i>y : </i>	7 0			Use-as-is Work Order Update			noforming Finishing Large Fab Composite	Bec/Sto	re/Packaging Supplier	
D	_			r - 1	Descr	iption of work order update	lr	itial	Action	Sign &	Verification	QC Inspector
Root Cause		Date	Step	Qty		or Non-conformance	Chi	ef Eng	Description	Date	Verification	QC IIISPECES
Doc/Data Equip/Tooling Operater Material		13/s/h1	100		USE Inste	- 29 GA motoric) cad of 25 GA. son 5 25 GA	13	15/22	Acceptable			
Setup Other Process Supplier Training		:			- NOT HAVE	AVALLABLE, WE Z BEEN WO USING			·	·		
Unapproved	\Box		<u> </u>	<u> </u>	146	A MATIL IN THE PASS	FAUL	T CATE	GORY			
		. ,				General	FAUL	I CATE	GURT		Г	Pressure/Forced
Land		Bending Centre N Cracks Crushed, Cuffs Heat Tre Inspection Ripples i	/Crimped eat on Strip in Bend Waves in	d in Tube 1 Extrusi		Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish		Instruct Maint Mislab Misrea Offset Out of	tion Incomplete ctions Incomplete/Unclear cenance peled ad	Ovalized Over/Und Part Incore Part Lost/ Part Move Positioned Power Los	Missing d I Wrong	Temperature/Cure Weld Wrong Stock Pulled Other
1	1	Turning	Sequence	ce	l	Fillish	\vdash	┥	I- Dimensions			

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Wave/Twist in Tube

Work Orde Wednesday, April				*10	ი617*						Page 2
Revision ID:	D3189-1 Chafing Shield	l(send DSI9629 with sp	oares)	Accept	*N9000	4010	N *	Setup		*N:	S1* S2*
Start Date: Required Date: Reference:	4/24/2013 4/29/2013	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item ID: Customer:						
Approvals:		n:		_	Date:				Start Stop		R1* R2*
Sequence ID/ Work Center II 105 *105* QC Quality Control)	Operation Description QC8- Inspect parts - sec	ond check	Set Up/ Run Hours 0.00 3		Cool # Plan Code	Accep Qty	t Reje Qty		Reject Number	Insp. Stamp
*110 *110* Small Fab Small Fab		Small Fab Memo 1- Roll as p	er Dwg D3189	0.00			3				(3/bs
120 *120* QC	·	QC5- Inspect part comp	leteness to step on W/O	0.00			3			ι,	,

Quality Control

										DQA:	Date:	· · · · · · · · · · · · · · · · · · ·
NCR: Y	es / No)			WORK ORDER NON-C	O	NFORM	MANCE / UP	DATE	QA Closed:	Date:	
					DISPOSITION			<u></u>	AGAINST DE			
Work Orde	er:			_ 	_	,		. —		1		1
Part N	lo				Rework Scrap Use-as-is		Thern	Skid-tube Machining noforming	Crosstube Small Fab Finishing	i	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	lo				Work Order Update			Large Fab	Composite	J	Supplier	
Root	T	ľ		Descri	ption of work order update	丌	nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty	,	or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data			Ì									
Equip/Tooling			1									
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Material		ĺ										
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Other												
Process												
Supplier		ļ	1									
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Landi	ng Gear			···	General		•			,	_	- .
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	Centre	Not Conce	entric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	L	Inspecti	on incomplete		Part Incorre	ct	Weld
	Crushe	ed/Crimped	i		Burrs		instruct	ions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination		Mainte	enance	<u></u>	Part Moved		
	Heat T	reat			Countersink		Mislabe	eled		Positioned V	Vrong	7
	Inspec	tion Strip i	n Tube		Cut Too Short		Misread	i		Power Loss/	Surge	Other
	Ripple	s in Bend			Drill Holes		Offset					·
	Torqu	e Waves in	Extrusio	n [Drawing		Out of 0	Calibration				

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Finish

Work Orde Wednesday, Apr				*100)617*						Page	3
Item ID: Revision ID: Item Name:	D3189-1	d(send DSI9629 with sp	ares)	Accept	*N900	040	100)* s	Setup Sta Sto	I	S1* S2*	
	4/24/2013	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item II Customer:	D:				IN		
Approvals:	Process Pla	in:	Date:	Tooling: SPC (Y/N):		ite:	-	F	Run Sta Sto		R1* R2*	
Sequence ID/ Work Center II 130 *120* Packaging)	Operation Description Identify as per dwg & Sto	ock Location: LG53	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
Packaging		QC21- Final Inspection -	Work Order Release	0.00					رام	120	13.3 W	- 30
140 QC Quality Control		Мето		0.00					13/0	e 17	W (3.5)	3

NCR:	Yes	/ No				WORK ORDER NON-	-CO	NFOR	MANCE / UPDAT	Έ			
· .											QA Closed:	Date:	
Work Ord	er: .					DISPOSITION			F		PARTMENT		
Part I					· · ·	Rework Scrap Use-as-is Work Order Update		Thern	Machining Si noforming F	mall Fab Finishing mposite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update		Initial	Action		Sign &		
Cause		Date	Step	Qty	(or Non-conformance	CI	nief Eng	Descriptio	n	Date	Verification	QC Inspector
Doc/Data					i								
Equip/Tooling				Ì			1						
Operator	Ш			ļ									:
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Supplier	Ш					,	1						
Training			ļ										
Unapproved					<u> </u>								
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Land	ing (Gear				General		-		_	7		1
	<u></u>	Bending			·	Bend	_	Grain			Ovalized		Pressure/Forced
		Centre N	ot Conce	ntric to	o/s	BOM/Route	_	Hardwa		_	Over/Under	 	Temperature/Cure
		Cracks				Broken/Damaged		- '	ion incomplete	ļ	Part Incorre	}	Weld
		Crushed/	Crimped		L	Burrs	<u> </u>	-	ions Incomplete/Uncle	ar	Part Lost/Mi	issing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	enance	<u></u>	Part Moved		
		Heat Trea	at			Countersink		Mislabe	•	<u></u>	Positioned V		1
•		Inspectio	n Strip in	Tube	L	Cut Too Short	L	Misread	d		Power Loss/	Surge	Other
		Ripples ir	n Bend			Drill Holes		Offset					
ł		Torque V	Vaves in I	Extrusio	n [Drawing		Out of	Calibration				·

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

· Wednesday, April 24, 2013 12:46:30 PM

Work Order ID: 100617

100617

Parent Item:

D3189-1

D3189-1

Parent Item Name: Chafing Shield(send DSI9629 with spares)

Start Date: 4/24/2013

Required Date: 4/29/2013

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP B05.08.22No longer made in-houseKJ/JLM

IPP Rev:C 06-03-24 Rolling Now made in House JLM

IPP Rev:D 07-04-16 As per Rev B JLM 11.05.11 now made on waterjet DD verf:JLM IPP Rev:E

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status	
M304S25GA 24		Purchased	No			100	sf	0.0000	0.32	-0-336842				
*N420402	Λ								**	1	_	1/	4	_

M3045/5(3A

304/316 .020 Sheet

0.025

125552

NCR: Y	es / No				WORK ORDER NON-C	O	NFORI	MANCE / UPD	ATE			
										QA Closed:	Date	:
Work Orde	r:		•		DISPOSITION	_			AGAINST DE	PARTMENT		, –
Part N	lo				Rework Scrap Use-as-is		i	Skid-tube Machining noforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	lo				Work Order Update]		Large Fab	Composite		Supplier]
Root				Descri	ption of work order update		Initial	Actio	on	Sign &		
Cause	Date	Step	Qty	. (or Non-conformance	Ch	nief Eng	Descrip	ption	Date	 Verification 	QC Inspector
Doc/Data												
Equip/Tooling	_										,	·
Operator	_										,	
Material	4		1 1									~ .
Setup	_		ŀ	-								
Other	4		1								_	
Process	-											
Supplier	_					ŀ						
Training 		1	<u> </u>		•							
Unapproved		1	<u>! </u>		Ε.	<u> </u>	T CATE	COBA	`.	<u> </u>		
1 andir	ng Gear				General	HUL	. CAIL	JONT				· · ·
Landin	Bending				Bend		Grain			Ovalized		Pressure/Forced
·	Centre N	ot Conce	ntric to C)/5	BOM/Route	\vdash	Hardwa	re	 	Over/Under	tolerance	Temperature/Cure
<u> </u>	Cracks			"	Broken/Damaged	\vdash	1	on incomplete		Part Incorre		Weld
ŀ	Crushed/	'Crimped			Burrs		1	ions Incomplete/Ur	nclear	Part Lost/Mi	—	Wrong Stock Pulled
Ì	Cuffs				Contamination		Mainte			Part Moved	·	, °
	Heat Tre	at			Countersink	\vdash	 Mislabe	led		Positioned V	Vrong	
	Inspection	n Strip in	Tube		Cut Too Short	Г	Misread	I		Power Loss/	Surge	Other
Ì	Ripples in	•			Drill Holes		Offset		1	•		
	Torque V	Vaves in E	Extrusion	,	Drawing		Out of 0	Calibration				
Ī	Turning S	Sequence	!		Finish		Out of 9	Sequence				

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

DART AEROSPACE LTD	Work Order:	100617
Description: Chafing Shield	Part Number:	D3189-1
Inspection Dwg: D3189 Rev: C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

		T 74,74,710 00 00 11				
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
4.38	+/-0.030	4.38			V	UKM-01
12.00	+/-0.030	12.001	/		V	MM-07
0.020	+/-0.010	0,24		***	V	JKM-01
						·
			20	L		

Measured by: Ae / Ma/	Audited by:	20	Preliminary Approval:	
Date: 13.05.27	Date:	13528	Date:	

Rev	Date	Change	Revised by	Approved
Α	11.06.21	New Issue	KJ (2//
В	12.09.26	Dimensions updated per Dwg Rev C	KJ A	Chl

											DQA	۸: Dat	te:			
NCR:	Yes	/ No				WORK ORDER NON-O	100	NFORM	MANCE / UPD	ATE						
								•			QA Closed	l: Dat	te:	 		
Work Ordon						DISPOSITION	DISPOSITION AGAIN					NST DEPARTMENT/PROCESS				
Work Order:						Rework Skid-tube Scrap Machining Use-as-is Thermoforming			Machining	Crosstube Small Fab Finishing	Small Fab Prod. Eng. Coor.			Engineering Quality Other		
NCR No.					Work Order Update			Large Fab	Composite	Supplier						
Root					Descri	ption of work order update		Initial	Actio	on	Sign &	·				
Cause		Date	Step	Qty	ď	or Non-conformance	Ch	nief Eng	Descri	ption	Date	Verification	n	QC Inspector		
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Setup							İ		·							
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Process		1														
Supplier		ĺ														
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Unapproved						•										
			•			F	AUL	T CATE	GORY							
Landi	ng (Gear				General					_	_				
	П	Bending				Bend		Grain			Ovalized		P	ressure/Forced		
		Centre N	ot Conce	ntric to	o/s	BOM/Route		Hardware			Over/Unde	er tolerance	T	emperature/Cure		
	Γ	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorr	ect	V	Veld		
	Γ	Crushed/	'Crimped			Burrs		Instruct	ions Incomplete/U	nclear	Part Lost/i	Aissing [V	Vrong Stock Pulled		
		Cuffs				Contamination		Mainte	nance	Г	Part Move	d -				
		Heat Tre	at			Countersink	Г	Mislabe	led	Γ	Positioned	Wrong				
	Г	Inspection	n Strip in	Tube		Cut Too Short		Misread	i		Power Los	s/Surge	C	Other		
	Ripples in Bend					Drill Holes		Offset			_	·				

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

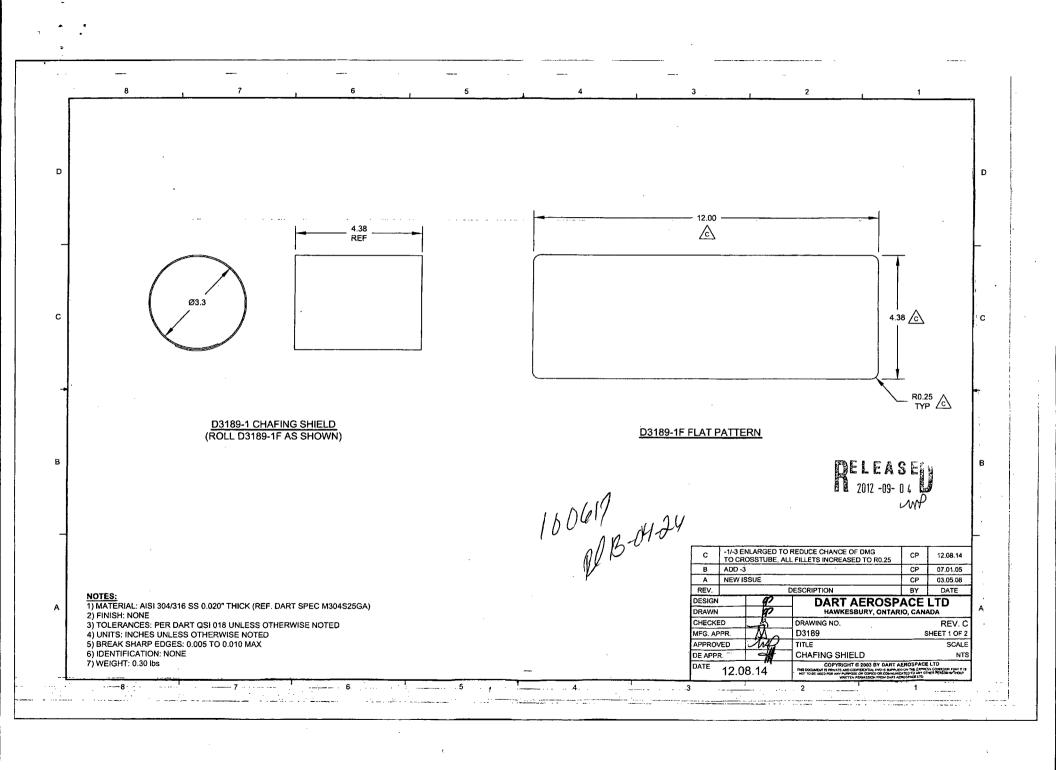
Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

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											DQA.	Ua	ιe.	
NCR: Yes / No						WORK ORDER NON-CONFORMANCE / UPDATE					QA Closed:	Da.	to.	~ .
											QA Closed: Date: EPARTMENT/PROCESS			
Part No						Rework Scrap			Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other
Root					Descri	ption of work order update	1	Initial	Action		Sign &			
Cause		Date	Step_	Qty	(or Non-conformance	Cr	nief Eng	Descript	tion	Date	Verification	n ·	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved						·								
		·					AUI	LT CATE	GORY				_	
Landi	Landing Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat					General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		- 1 '	on Incomplete ions Incomplete/Unc nance led	clear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing Vrong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
1	Inspection Strip in Tube Cut Too Short Misread						J. 0 c. 1033/			1				

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

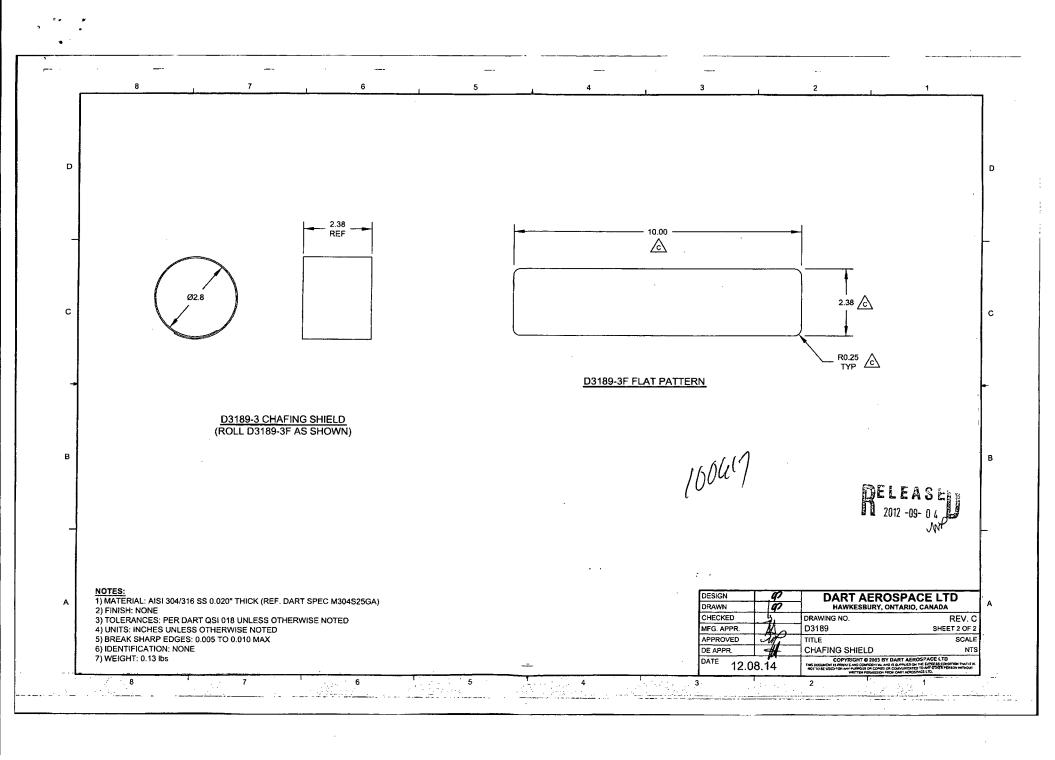
Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G



$NCR \cdot$	Vac	1	No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Date:

iven.	23 / 140				WORK ORDER HOR C			QA Closed:	Date	:			
Work Orde	ŕ:				DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No.					Rework Scrap		Skid-tube Crosstube Machining Small Fab moforming Finishing	Pro	Water Jet	Engineering Quality Other			
NCR No.					Use-as-is Work Order Update	Nec/3to	Rec/Store/Packaging Other Supplier						
Root			[[Descri	ption of work order update	Initial	Action	Sign &					
Cause	Date	Step	Qty	(or Non-conformance	Chief Eng	Description	Date	Verification	QC Inspector			
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Other		1					·						
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					· · · · · · · · · · · · · · · · · · ·	AULT CATE	GORY	· · · · · · · · · · · · · · · · · · ·					
Landin	g Gear 🐪		-		General			 1		-			
. [Bending			_	Bend	Grain	!	Ovalized		Pressure/Forced			
	Centre N	ot Conce	ntric to (o/s	BOM/Route	Hardwa		Over/Under	 	Temperature/Cure			
_	Cracks			_	Broken/Damaged	⊢	tion Incomplete	Part Incorre	⊢	Weld			
1	Crushed/	Crimped		_	Burrs	\vdash	tions Incomplete/Unclear	${f oxdot}$	Part Lost/Missing Wrong Stock Pull				
	Cuffs				Contamination	<u> </u>	enance	${f H}$	Part Moved				
	Heat Trea	at			Countersink	Mislab		Positioned \		٦			
L	Inspectio	•	Tube		Cut Too Short	Misrea	d	Power Loss/	'Surge -	Other			
Ĺ	Ripples in	n Bend		L	Drill Holes	Offset							
	Torque V	Vaves in I	Extrusio	n L	Drawing	\vdash	Calibration						
[Turning S	Sequence	!		Finish	Out of	Sequence						
I	M/ayo/Tu	dict in Tul	ho		Folio	Loutside	e Dimensions						